

(c) a data storage device operatively connected to the switch; and

(d) wherein the server operates independently of the data storage device and is connected to the data storage device via the switch in a manner to permit the inclusion of an additional server to process other user requests without the inclusion of an additional data storage device.

C 80. The system of Claim 79 wherein the server operates independently of the data storage device and is connected to the data storage device via the switch in a manner to permit the inclusion of an additional data storage device without the inclusion of an additional server.

I 81. The system of Claim 79 wherein the server applies an application to the user requests, the application selected from the group consisting of: a mail application, a news application, a directory application, a content application, a groupware application, and an internet protocol (IP) service.

82. A scalable system for providing network processing and stored data access, the system comprising:

- (a) at least first and second servers operative to process at least first and second user requests, respectively;
- (b) a switch operatively connected to each of the servers;
- (c) a plurality of data storage devices operatively connected to the switch; and
- (d) wherein the servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the inclusion of an

additional server to process at least an additional user request without the inclusion of an additional data storage device.

83. The system of Claim 82 wherein the servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the inclusion of an additional data storage device without the inclusion of an additional server.

C 84. The system of Claim 83 wherein the servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the removal of any one of the plurality of data storage devices without the removal of any of the servers.

85. The system of Claim 82 wherein the servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the removal of any one of the servers without the removal of any of the data storage devices.

86. The system of Claim 82 wherein each of the first and second servers applies an application, the application applied by the first server being substantially the same as the application applied by the second server such that, in the event of a failure of either of the first and second servers, any subsequent user requests will be processed by any other of the servers that are operable.

87. The system of Claim 82 wherein each of the plurality of data storage devices stores data, the data stored by each of the plurality of data storage devices being substantially the same such that, in the event of a failure of any one of the plurality of data storage devices, the data is accessible from any other of the plurality of data storage devices that are operable.

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88. The system of Claim 82 wherein each of the first and second servers applies an application, the application applied by the first server being substantially the same as the application applied by the second server such that, in the event of a failure of either of the first and second servers, any subsequent user requests will be processed by any other of the servers that are operable, and wherein each of the plurality of data storage devices stores data, the data stored by each of the plurality of data storage devices being substantially the same such that, in the event of a failure of any one of the plurality of data storage devices, the data is accessible from any other of the plurality of data storage devices that are operable.

89. The system of Claim 82 wherein each of the at least first and second servers applies an application selected from the group consisting of: a mail application, a news application, a directory application, a content application, a groupware application, and an internet protocol (IP) service.

90. The system of Claim 82 further comprising a load balancer operatively connected to each of the at least first and second servers, the load balancer operative to route an additional user request to the one of the at least first and second servers with the least load.

91. A scalable system for providing network processing and stored data access, the system comprising:

- (a) at least first and second sets of servers, each of the sets of servers comprising at least first and second servers operative to process at least first and second user requests, respectively, and wherein each of the sets of servers applies a separate application;
- (b) a switch operatively connected to each of the servers within each of the sets of servers;
- (c) a plurality of data storage devices operatively connected to the switch; and
- (d) wherein the sets of servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the inclusion of an additional server to any of the sets of servers to process at least an additional user request without the inclusion of an additional data storage device.

92. The system of Claim 91 wherein the sets of servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the inclusion of an additional data storage device without the inclusion of an additional server to any of the sets of servers.

93. The system of Claim 92 wherein the sets of servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the removal of any one of the plurality of data storage devices without the removal of any of the servers from any of the sets of servers.

94. The system of Claim 93 wherein the data stored by any one of the plurality of data storage devices is associated with an application applied by any one of the sets of servers.

95. The system of Claim 91 wherein the sets of servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the removal of any one of the servers from any one of the sets of servers without the removal of any of the plurality of data storage devices.

96. The system of Claim 91 wherein each of the at least first and second servers of any one of the sets of servers applies an application selected from the group consisting of: a mail application, a news application, a directory application, a content application, a groupware application, and an internet protocol (IP) service.

97. The system of Claim 91 wherein each of the at least first and second servers of any one of the sets of servers applies an application, and wherein the system further comprises a load balancer operatively connected to each of the at least first and second servers of each of the sets of servers, the load balancer operative to route user requests to the one of the at least first and second servers of the sets of servers with the least load for a particular application.

98. A survivable system for providing network processing and stored data access, the system comprising:

(a) at least first and second servers operative to process at least first and second user requests, respectively,

- (b) a switch operatively connected to each of the servers;
- (c) a plurality of data storage devices operatively connected to the switch;
- (d) wherein each of the first and second servers applies an application, the application applied by the first server being substantially the same as the application applied by the second server such that, in the event of a failure of either of the first and second servers, any subsequent user requests will be processed by any other of the servers that are operable; and
- (e) wherein each of the plurality of data storage devices stores data, the data stored by each of the plurality of data storage devices being substantially the same such that, in the event of a failure of any one of the plurality of data storage devices, the data is accessible from any other of the plurality of data storage devices that are operable.

99. The system of Claim 98 wherein the data stored by any one of the plurality of data storage devices is associated with an application applied by any one of the first and second servers.

100. The system of Claim 98 wherein each of the at least first and second servers applies an application selected from the group consisting of: a mail application, a news application, a directory application, a content application, a groupware application, and an internet protocol (IP) service.

101. The system of Claim 98 further comprising a load balancer operatively connected to each of the at least first and second servers, the load balancer operative to route user requests to the one of the at least first and second servers corresponding to the server with the least load

102. A scalable system for providing network processing and stored data access, the system comprising:

- (a) at least first and second servers operative to process at least first and second user requests, respectively;
- (b) a switch operatively connected to each of the servers;
- (c) a plurality of data storage devices operatively connected to the switch;
- (d) a load balancer operatively connected to each of the at least first and second servers, the load balancer operative to route user requests to the one of the at least first and second servers with the least load; and

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(e) wherein the servers operate independently of the data storage devices and are connected to the data storage devices via the switch in a manner to permit the inclusion of an additional server to process at least an additional user request without the inclusion of an additional data storage device, to permit the inclusion of an additional data storage device without the inclusion of an additional server, to permit the removal of any one of the servers without the removal of any of the data storage devices, and to permit the removal of any one of the data storage devices without the removal of any of the servers.

103. The system of Claim 102 wherein each of the first and second servers applies an application, the application applied by the first server being substantially the same as the application applied by the second server such that, in the event of a failure of either of the first and second servers, any subsequent user requests will be processed by any other of the servers that are operable, and wherein each of the plurality of data storage devices stores data, the data stored by each of the plurality of data storage devices being substantially the same such that, in

the event of a failure of any one of the plurality of data storage devices, the data is accessible from any other of the plurality of data storage devices that are operable.

104. A method for providing network processing and stored data access, the method comprising the steps of:

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- (a) providing a server operative to apply an application;
 - (b) receiving a user request on the server;
 - (c) applying the application to the user request to generate a query;
 - (d) providing a data storage device configured to store data;
 - (e) switching the query to the data storage device;
 - (f) routing requested data from the data storage device to the server in response to the query; and
 - (g) providing an additional server without providing an additional data storage device, or alternatively, providing an additional data storage device without providing an additional server.

105. The method of Claim 104 wherein the application is selected from the group consisting of: a mail application, a news application, a directory application, a content application, a groupware application, and an internet protocol (IP) service.

106. A method for providing network processing and stored data access, the method comprising the steps of:

(a) providing at least first and second servers operative to apply first and second applications, respectively;

(b) receiving first and second user requests on the first and second servers, respectively;

(c) applying the first and second applications to the first and second user requests, respectively, to generate first and second queries, respectively;

(d) providing at least first and second data storage devices configured to store first and second data, respectively;

C (e) switching the first and second queries to the first and second data storage devices, respectively;

| (f) routing first requested data from the first data storage device to the first server in response to the first query, and routing second requested data from the second data storage device to the second server in response to the second query; and

(g) providing an additional server without providing an additional data storage device, or alternatively, providing an additional data storage device without providing an additional server.

107. The method of Claim 106 wherein each of the first and second applications is selected from the group consisting of: a mail application, a news application, a directory application, a content application, a groupware application, and an internet protocol (IP) service.

108. The method of Claim 106 wherein the first application is substantially the same as the second application.

109. The method of Claim 108 further comprising the step of:

(h) in the event of a failure of either of the first and second servers, processing any subsequent user requests on any other of the servers that are operable.

110. The method of Claim 106 wherein the first data is substantially the same as the second data.

111. The method of Claim 110 further comprising the step of:

c | (h) in the event of a failure of either of the first and second data storage devices, providing any subsequent requested data from any other of the data storage devices that are operable.

112. The method of Claim 106 wherein the first application is substantially the same as the second application, and wherein the first data is substantially the same as the second data.

113. The method of Claim 112 further comprising the steps of:

(h) in the event of a failure of either of the first and second servers, processing subsequent requests on any other of the servers that are operable; and

(i) in the event of a failure of either of the first and second data storage devices, providing any subsequent requested data from any other of the data storage devices that are operable.

114. A method for providing network processing and stored data access, the method comprising the steps of:

- (a) providing at least first and second servers operative to apply first and second applications, respectively, the first application being substantially the same as the second application;
- (b) receiving first and second user requests on the first and second servers, respectively;
- (c) applying the first and second applications to the first and second user requests, respectively, to generate first and second queries, respectively;
- (d) providing at least first and second data storage devices configured to store first and second data, respectively, the first data being substantially the same as the second data;
- (e) switching the first and second queries to the first and second data storage devices, respectively;
- (f) routing first requested data from the first data storage device to the first server in response to the first query, and routing second requested data from the second data storage device to the second server in response to the second query;
- (g) in the event of a failure of either of the first and second servers, processing any subsequent requests on any other of the servers that are operable; and
- (h) in the event of a failure of either of the first and second data storage devices, providing any subsequent requested data from any other of the data storage devices that are operable.

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115. The method of Claim 114 wherein each of the first and second applications is selected from the group consisting of: a mail application, a news application, a directory application, a content application, a groupware application, and an internet protocol (IP) service.

